

# Operating Guide for Sony VX-2000

16mm Work Order Required  
Proficiency Required

## 3 Chip Digital Camcorder



### Media Loan VX-2000 Package includes:

Sony VX-2000 Digital Camcorder  
AC Adapter with DC Cable  
Remote Control  
RCA & S-VHS Dubbing Cables  
Density Case



### Specifications:

Image Device: 3 CCD's (Charged Coupled Device)  
Video Recording System: Two rotary heads, helical scanning system  
Video Signal: NTSC color  
Format: Use mini DV cassette ME (metal evaporative)  
Recording and Playback Time: 1 hour with a DVM60ME tape @SP  
Resolution: Over 500 lines  
Viewfinder: Color LCD  
Zoom: 12x optical; 48x digital;  
Photo shot: Captures more than 510 images in SP mode on a 60-minute tape  
Minimum Illumination: 2 lux (F 1.6);  
Audio Recording Format: Rotary heads, PCM (Pulse Code Modulation) system: 16 bit(48 kHz), or 12 bit(32kHz)  
Mic: 4-capsule stereo w/external mini jack  
Battery Power: Typical recording time (with a full charged battery) 40 min with standard, 4.5 hours with extended

### Manual Controls:

Program Auto Exposure (3-mode AE): Shutter priority, Iris priority, and Natural night mode  
Manual exposure: Iris and gain (20 step), shutter speed (16 speeds)  
Manual White Balance  
Custom Preset: Controls auto exposure shift, white balance shift, color level control, gain shift and sharpness control  
Manual Focus Ring: With focus indicator

### Avoid mechanical shock

Keep camcorder away from strong magnetic fields or mechanical vibration

Keep **Power** switch set to **off** when not in use

Do **NOT** get wet or use near water

Do **NOT** aim at the sun or other bright objects

Do **NOT** expose camcorder to extreme temperatures

Do **NOT** leave unattended (remember borrower is totally responsible for loss or damage)

Do **NOT** touch lens surface

Do **NOT** try to clean viewfinder or LCD panel

Do **NOT** lift or carry by viewfinder

Do **NOT** wrap up the camcorder and use, to prevent internal heat buildup

Do **NOT** force camera to accept tape

Make sure that there are no protruding labels on the tape (may interfere with cassette insertion)

**Remember** to always test equipment before checking out & returning to Media Loan

### Special Features:

A/V Digital Fader and Overlap Transitions: Fades to from black or from previous still pictures

Photo Mode: Records still image and audio signal for 7 seconds

Interval and Frame Recording: For six frame recording and time-lapse effects

2-Speed Search Feature

Steadyshot Picture Stabilization

Zebra-Pattern Feature: Indicates overexposed areas

Full Range Auto Focus: From macro to infinity

ND Filter: Prevents picture from going out of focus under bright conditions

### Editing:

DV Interface: For direct input and output, digital-to digital audio and video editing with virtually no quality loss (A/V control)

Time Code: For hour, minute, second, and frame; identifies and locates scenes for editing

Control L (LANC): Local Application Control Bus System; used for controlling the tape transport of video equipment and attached peripherals

**Media Loan**

**The Library Group**

**(360) 867-6253**

**The Evergreen State College**

**Olympia, WA 98505**

<http://www.evergreen.edu/media>

## Sony VX-2000

### Supply Power with a Battery Pack:

1. Lift up the **Viewfinder**.
2. Insert the battery pack with the downward arrow on the battery pack facing down.
3. Slide the battery pack down until it clicks into place.

### Supply Power with the AC adapter:

1. Connect the AC adapter to a power outlet.
2. Connect the camcorder and the AC power adapter using the supplied cord.

### Charging the Battery:

Simply supply power with the AC adapter while battery is inserted, and leave **POWER** switch set to **OFF**. Approx. charging time for full battery: normal battery 2.5 hours, extended life battery: 6.5 hours

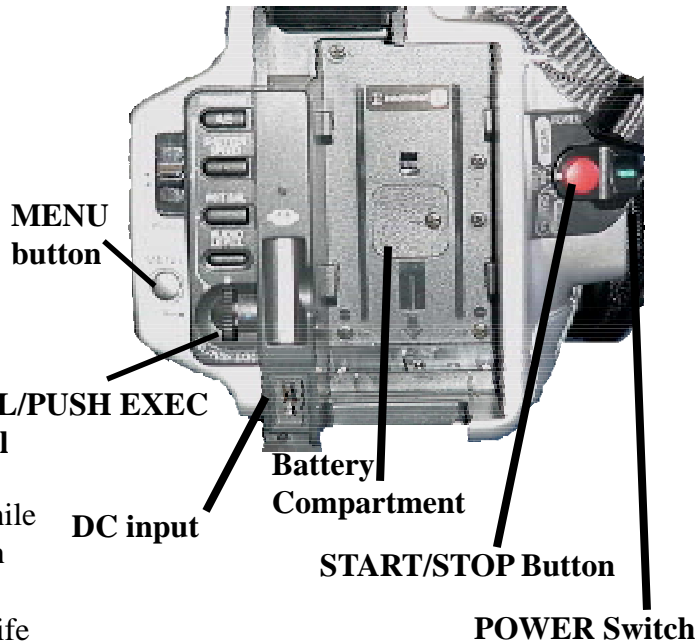
### Cassette Insertion:

Note: Use only Mini DV cassettes.

1. Connect the camcorder to a power source.
2. Slide the **EJECT** button. The cassette compartment automatically opens.
3. Insert a cassette with the write-protect tab facing upward and the window side facing out.
4. Gently press the **PUSH** button on the outside of the compartment until the door clicks shut.



**PHOTO button**  
**EJECT Button**      **PUSH Close Button**



### Video Recording:

1. Remove the hood cap.
2. While pressing the green center button on the **POWER** switch, set it to **CAMERA**.
3. Press the red **START/STOP** button to start recording. The 'Rec' indicator appears in the viewfinder and the red lamp indicator lights up in the front of the camcorder.
4. Press the **START/STOP** button again to stop recording.

### Photo Recording:

1. Set the **POWER** switch to **CAMERA**.
2. Press the **PHOTO** button lightly until a still picture appears in the viewfinder. To change the still picture, release the Photo button and repeat.
3. Press the **PHOTO** button deeper, The still image and sound are recorded for seven seconds.

### Changing Mode Settings:

1. Press the **MENU** button.
2. Use the **SEL/PUSH EXEC** dial to select the desired item, and then press down on the **SEL/PUSH EXEC** dial to execute.
3. Use the **SEL/PUSH EXEC** dial to select the desired mode and then press down on the dial to execute.
4. Press the **MENU** button to erase the menu display.

## Sony VX-2000

### Using the Fader/Overlap Function:

To fade in:

1. While in Standby, press the **FADER** button until the desired fader indicator flashes in the viewfinder.
2. Press the **START/STOP** button; the shot will automatically fade in.

To fade out:

1. While recording, press the **FADER** button repeatedly until desired fader mode flashes in the Viewfinder.
2. Press the **START/STOP** button; the shot will automatically fade out.

After the fade is completed, the camcorder returns to the normal mode.



The fade modes are as follows:

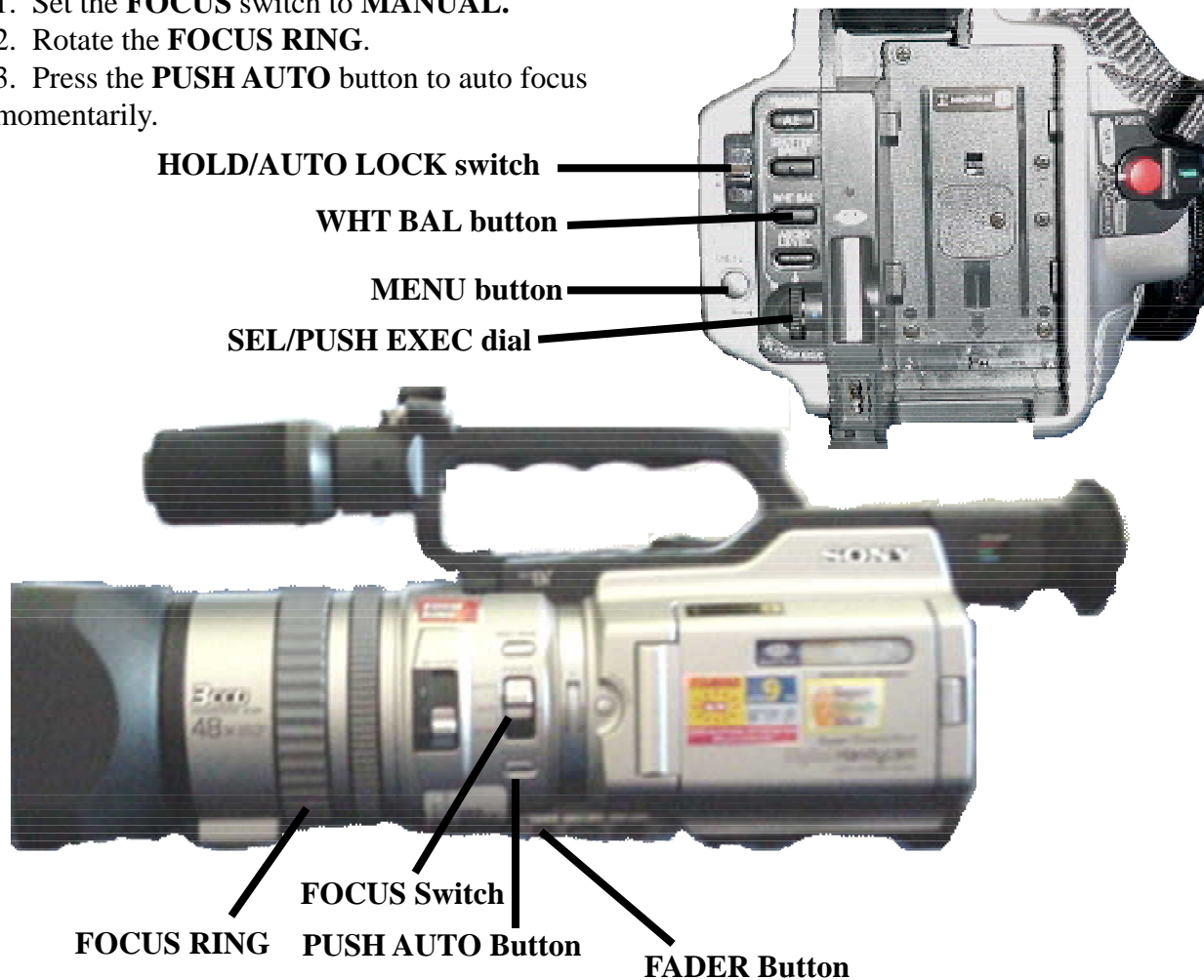
Fader, Monotone, Overlap\*, Wipe\*, Dot\*, none  
\*= fade in only

### Manual Focus:

1. Set the **FOCUS** switch to **MANUAL**.
2. Rotate the **FOCUS RING**.
3. Press the **PUSH AUTO** button to auto focus momentarily.

### Adjusting White Balance:

1. Set **HOLD/AUTO LOCK** switch to the center position.
2. Press the **WHT BAL** button, the white balance indicator appears in the viewfinder.
3. Use the **SEL/PUSH EXEC** dial to the appropriate white balance mode: one-push (manual calibration), outdoor, or indoor.
4. To use one-push manual adjustment mode--  
 the camcorder must be in standby. Fill the frame with a white object such as paper, and press the **SEL/PUSH EXEC** dial. The indicator flashes  rapidly, to indicate storage of new balance setting. The indicator stops flashing when white balance has been adjusted.
4. To return to automatic adjustment, set the **AUTO LOCK** switch to Auto Lock or press the **WHT BAL** button. The indicator disappears from the viewfinder.



## Sony VX-2000

### Using the Program AE function:

You can select from five AE (auto exposure) modes:

**Aperture Priority:** Select the aperture manually to determine best depth of field. Gain and shutter speed are set automatically for best exposure.

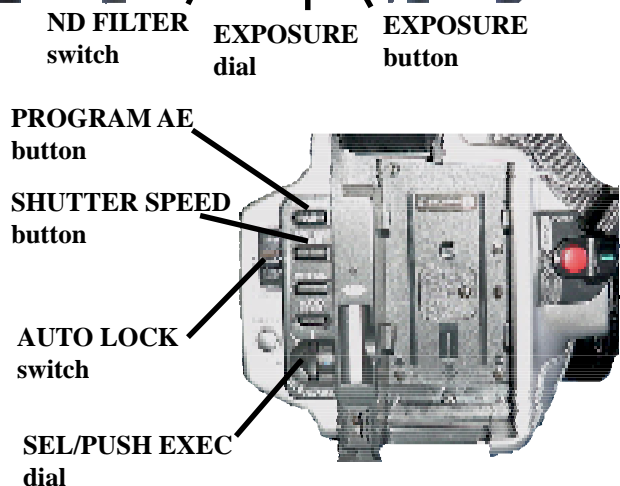
**Shutter Speed Priority:** Select shutter speed manually. Exposure is set automatically.

**Sports:** For capturing high speed action at a distance.

**Sunset and Moon:** For capturing sunset, night views, fireworks, neon signs, etc.

**Low Lux:** For capturing a subject in insufficient light. Subject becomes bright.

1. Set the **AUTO LOCK** switch to the center position.
2. Press the **PROGRAM AE** button, the indicator appears in the viewfinder.
3. Turn the **SEL/PUSH EXEC** dial to select the desired auto exposure mode. Press the **SEL/PUSH EXEC** dial to select.
4. In aperture priority or shutter speed priority modes turn the **SEL/PUSH EXEC** dial to select the aperture value or shutter speed, respectively.



### Adjusting Exposure Manually:

For use in unusual lighting.

1. Set the **AUTO LOCK** switch to the center position.
2. Press the **EXPOSURE** button, the exposure indicator appears in the viewfinder.
3. Turn the **EXPOSURE DIAL**. To brighten the picture, adjust the level to the + side.
4. To return to automatic exposure mode set the **AUTO LOCK** switch to the Auto Lock position or press the **EXPOSURE** or the **PROGRAM AE** button.

### Adjusting Shutter Speed Manually:

1. Set the **AUTO LOCK** switch to the center position. If the **PROGRAM AE** indicator is lit in the viewfinder, press the **PROGRAM AE** button repeatedly until the indicator disappears.
2. Press the **SHUTTER SPEED** button. The shutter speed indicator appears in the viewfinder.
3. Turn the **SEL/PUSH EXEC** dial to select the desired speed. The shutter speed ranges from 1/4 to 1/10000.
4. To return to automatic shutter speed mode, set the **AUTO LOCK** selector to Auto Lock, or press the **SHUTTER SPEED** button. The shutter speed indicator disappears from the viewfinder.

### Using the ND Filter:

The Neutral Density Filter can allow you to shoot clearly even under too bright conditions. ND Filter setting 1 corresponds to 1/4 of the quantity of light, and ND Filter setting 2 corresponds to 1/32. It is recommended that you set the ND filter in standby mode, as it can cause audio and video noise during recording.

1. When the **ND1** or **ND2** indicator flashes in the viewfinder, set the **ND FILTER** switch to the corresponding setting.
2. When the **ND OFF** indicator flashes in the viewfinder, the filter is not necessary. Set the **ND FILTER** switch to off.

## Sony VX-2000

### Adjusting Sound Levels Manually:

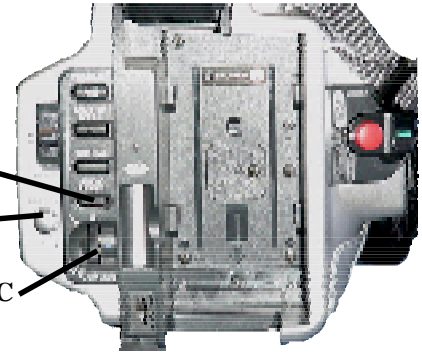
Sound levels are set automatically by default.

1. Press the **MENU** button.
2. Turn the **SEL/PUSH EXEC** dial to select the **TAPE SET** menu, then press the dial.
3. Turn the **SEL/PUSH EXEC** dial to **MIC LEVEL** then press the dial.
4. Turn the **SEL/PUSH EXEC** dial to select **MANUAL** then press the dial.
5. Press the **MENU** button to erase the menu display.
6. Press the **AUDIO LEVEL** button to display the recording level adjustment display.
7. Turn the **SEL/PUSH EXEC** dial to adjust the recording level.
8. To return to automatic sound levels, repeat steps 1-3 above, and select **AUTO** in step 4.

**AUDIO LEVEL**  
button

**MENU** button

**SEL/PUSH EXEC**  
dial



### Releasing Steadyshot:

1. Press the **MENU** button.
2. Turn the **SEL/PUSH EXEC** dial to select **CAMERA SET** then press the dial.
3. Turn the **SEL/PUSH EXEC** dial to select **STEADYSHOT** then press the dial.
4. Turn the **SEL/PUSH EXEC** dial to select **OFF** then press the dial.
5. Press the **MENU** button to erase the menu display.

## Glossary

### CCD:

Stands for Charged Coupled Device. It is the imaging device made of light sensing pixels, which are used in the camera to capture images for video. Higher pixel count usually means better image and detail quality.

### White Balance:

White balance adjustment makes white objects appear white and allows more normal color balance for camera recording. Normally automatically adjusted, but it can be adjusted manually when lighting characteristics change or when shooting outdoors.

### Shutter Speed:

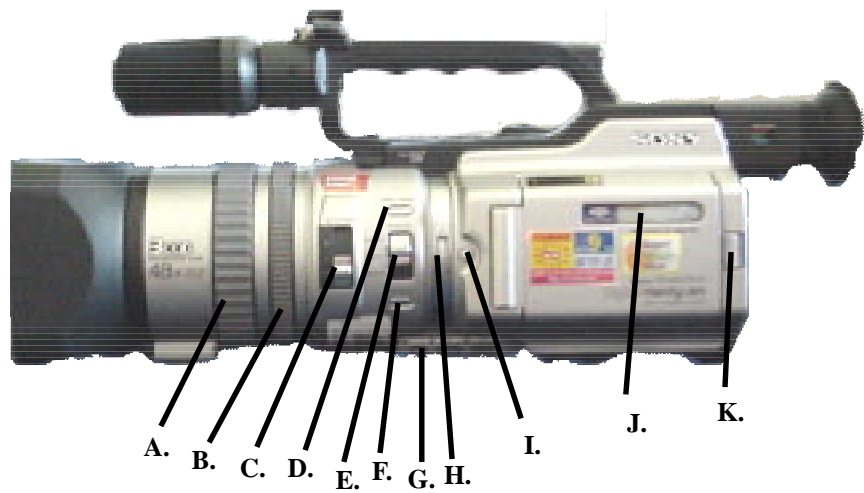
Shutter speed is the speed at which the camera captures the image. The shutter ranges from 1/4 - 1/10000, with smaller setting (or larger value indicator value) in the viewfinder meaning increased shutter speed.

### AUTO LOCK Switch:

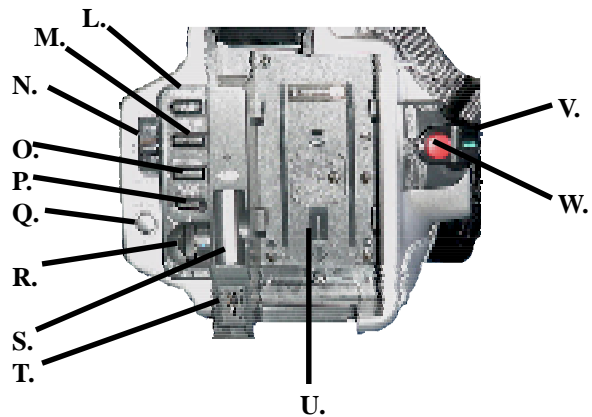
The switch is used when adjustment for exposure, shutter speed, white balance, and Program AE is needed. The center position on the **AUTO LOCK** switch is used for making manual adjustments. The top position on the **AUTO LOCK** switch is used to allow the camcorder to set function(s) automatically. The bottom position, **HOLD**, is used to maintain or hold the manual position, once set.

## Sony VX-2000

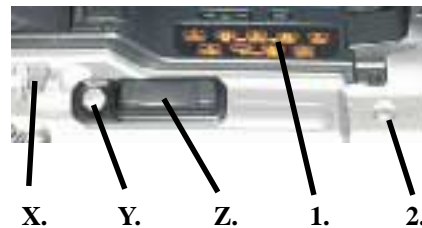
- A. Focus Ring
- B. Zoom Ring
- C. ND FILTER selector
- D. INDEX MARK button
- E. FOCUS selector
- F. PUSH AUTO button
- G. FADER button
- H. EXPOSURE dial
- I. EXPOSURE button
- J. Display window
- K. OPEN button



- L. PROGRAM AE button
- M. SHUTTER SPEED button
- N. AUTO LOCK selector
- O. WHT BAL (white balance) button
- P. AUDIO LEVEL button
- Q. MENU button
- R. SEL/PUSH EXEC dial/button
- S. Memory Stick slot
- T. DC Power In jack
- U. Battery compartment
- V. POWER switch
- W. START/STOP (recording) button



- X. BATT (battery) RELEASE button
- Y. PHOTO button
- Z. ZOOM lever
- 1. VCR control panel
- 2. START/STOP (recording) button



- 3. PUSH close button
- 4. S-Video out
- 5. Video out
- 6. Audio L/R out
- 7. DV in/out



## Sony VX-2000

### Menu Items

Many camcorder settings are accessible only through these menus.

To access the menus:

1. Press the **MENU** button.
2. Use the **SEL/PUSH EXEC** dial to select submenus.
3. Press the **SEL/PUSH EXEC** dial to select.
4. Press the **MENU** button to exit the menu.

<b>Manual Set Menu</b>	Auto Shutter	on	off	
	Prog.Scan	on	off	
<b>Camera Set Menu</b>	D Zoom	off	24x	48x
	16:9 Wide	on	off	
	Steadyshot	on	off	
	Frame Rec	on	off	
	Int. Rec	on	off	
<b>LCD/VF Set Menu</b>	LCD B.L.	scale		
	LCD Color	scale		
	VF B.L.	scale		
	Guideframe	on	off	
<b>CM Set Menu</b>	Tape Title			
	Title Erase			
	Item Erase			
	Erase All			
<b>Tape Set Menu</b>	Rec Mode	SP	LP	
	Audio Mode	12 bit	16 bit	
	Tape Remain	auto	on	
	Mic Level	auto	manual	
<b>Setup Menu</b>	Clock Set			
	Ltr Size	normal	2x	
	Demo Mode			
<b>Others Menu</b>	World Time			
	Beep	melody	normal	off
	Commander	on	off	
	Display	LCD	V-Out/LCD	
	Rec Lamp	on	off	
	Color Bar	on	off	

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# Sony VX-2000

16mm Proficiency Questions  
Must Fill Out a Film Production Work Order to  
Schedule a Proficiency.

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*Proficiency in VHS camcorders and Palmcorders are required before becoming proficient in the Sony VX-2000.*

WRITTEN TEST: Answers may be found in the *Operating Guide for the Sony VX-2000* or on Media Loan Webpage.

Complete this written portion on a separate sheet of paper *before* arriving for your operational proficiency.

1. What general precautions should you observe when using the VX-2000?
2. List the steps in providing battery power to the VX-2000.
3. How long should you charge a battery? How long will it last?
4. List the steps involved in using the AC adaptor to provide power to the VX-2000.
5. List the steps to insert a cassette.
6. List the steps in displaying the menu and selecting an item.
7. What are two ways of adjusting the white balance?
8. What does the ND filter do?
9. List the steps to adjust the iris/shutter speed.
10. List the steps to do an overlap.
11. What is one reason why the digital zoom will not work?
12. How do you turn on/off the Steady-shot feature?
13. What is the extent of your financial responsibility when you've checked out the camcorder?

**Operational Proficiency questions on back.**

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# Sony VX-2000

## OPERATIONAL PROFICIENCY

*(to be done during your scheduled appointment)*

- A. Remove the VX-2000 from the case and identify all controls and parts.
  - B. Correctly and securely set up the VX-2000 to a tripod.
  - C. Attach the VX-2000 to its AC adaptor and a monitor.
  - D. Load a Mini-DV tape.
  - E. Set and describe the white balances, auto exposures, rec-frame, and interval recording.
  - F. Change the iris/shutter priorities.
  - G. Manually focus the VX-2000.
  - H. Set up an external mic and plug in headphones. Set to manual Rec Level. Set level.
  - I. Starting at the beginning of a tape, do some recording. Fade up from black and fade to black. Do an overlap. Playback the recording.
  - J. Set up a battery to be charged.
  - K. Do a photo record.
  - L. Correctly pack the VX-2000 back into its case.
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